

RCRA PERMIT  
ADMINISTRATIVE RECORD  
ITEM NUMBER  
TOTAL NUMBER OF PAGES

WA 2917

6/10/1992

46

**Kennedy/Jenks Consultants**

Engineers and Scientists

530 South 336th Street  
Federal Way, Washington 98003  
206-874-0555 (Seattle)  
206-927-8688 (Tacoma)  
FAX 206-952-3435

10 June 1992

Mr. Doug Hotchkiss  
Port of Seattle  
P.O. Box 1209  
Seattle, Washington 98111

DRAFT

FILE COPY

Subject: Response to EPA RCRA 3007 Request  
Pier 91 Facility - Seattle, Washington  
Port of Seattle  
K/J 916059.00

Dear Mr. Hotchkiss:

This letter is prepared in accordance with our Professional Services Agreement No. P-044664 dated 23 September 1991, in response to the Port of Seattle's request as stated in a meeting on 11 May 1992. Attendees at that meeting were Mr. David Aggerholm and Mr. Tom Tanaka, Port of Seattle, and Mr. Nathan Graves and Ms. Susan Roth, Kennedy/Jenks Consultants. This letter report and the aforementioned meeting were in response to a letter from the U.S. Environmental Protection Agency (EPA) to the Port of Seattle dated 1 May 1992 and received by the Port of Seattle 5 May 1992. The letter requested information from the Port of Seattle regarding solid waste management units (SWMUs) at Piers 90 and 91 under the authority of Section 3007 of the Resource Conservation and Recovery Act (RCRA).

At the aforementioned meeting and in subsequent conversations with Mr. Doug Hotchkiss, the Port of Seattle requested that Kennedy/Jenks Consultants prepare a list of reports and other information available in the Port of Seattle's files regarding Piers 90 and 91. The list would include only the reports and other information that were considered to be relevant to the EPA's request; i.e., involving potential SWMUs and hazardous waste management units (HWMUs) and associated releases and spills.

USEPA RCRA



3012768

**Kennedy/Jenks Consultants**

Mr. Doug Hotchkiss  
Port of Seattle  
10 June 1992  
Page 2

**DRAFT**

Ms. Susan Roth of Kennedy/Jenks Consultants met with Mr. Hotchkiss on 18 May 1992 to obtain a summary list of available information and to copy available files in order to prepare a bibliography of available information. The bibliography is presented as an enclosure to this letter. In addition, Converse Consultants provided additional references in a meeting on 8 June 1992 and in subsequent correspondence. It is also our understanding that the Port of Seattle is currently conducting an underground storage tank (UST) evaluation program in order to maintain compliance with existing regulations. Site assessments of these UST sites will be conducted when required by the Washington UST Regulations (WAC 173-360).

Other information that was suggested by Mr. Hotchkiss to be available includes the following.

- Possible records in Burlington Environmental, Inc. (Burlington) files of USTs that might have been removed by Burlington prior to promulgation of federal and state UST regulations.
- Reports prepared by GeoEngineers during geotechnical investigations at the site of the Elliott Bay Marina.
- Information from PANOCO or Burlington personnel regarding the discovery of free product in trenches excavated for foundation forms.

**Kennedy/Jenks Consultants**

Mr. Doug Hotchkiss  
Port of Seattle  
10 June 1992  
Page 3

**DRAFT**

It is a pleasure to be working with you on this project. If you have any questions regarding the information presented in this letter or any other issues, call us at (206) 771-3480 or (206) 874-0555.

Very truly yours,

KENNEDY/JENKS CONSULTANTS

Susan Roth  
Project Manager

SJR/nmh  
bsjr1

Enclosure

PORT OF SEATTLE ENGINEERING DEPARTMENT  
**DRAFT**  
FOR REVIEW AND COMMENT



Kennedy/Jenks Consultants

**BIBLIOGRAPHY****City Ice Geotechnical Investigation**

GeoEngineers, Inc. 1987. Report of Geotechnical Engineering Services, Proposed Facilities Expansion, Seattle, Washington. Report prepared for City Ice and Cold Storage Company dated 10 February 1987. (Reported hydrocarbon odor in soil borings.)

GeoEngineers, Inc. 1987. Summary Letter, Monitoring Well Installation, Proposed Facility Expansion. Letter report prepared for City Ice and Cold Storage Company dated 26 June 1987. (Report on installation of monitoring well MW-1.)

GeoEngineers, Inc. 1987. Summary of Supplemental Monitoring Well Measurements, Proposed Facility Expansion. Letter report prepared for City Ice and Cold Storage Company dated 31 August 1987. (Laboratory analytical results for a groundwater sample from monitoring well MW-1.)

GeoEngineers, Inc. 1989. Report, Geotechnical Engineering Services, Proposed Cold Storage Warehouse and Fish Processing Facility, Pier 91, Seattle, Washington. Report prepared for City Ice Cold Storage Company dated 2 November 1989. (Geotechnical information for soil borings.)

Port of Seattle files:

- Analytical laboratory results for a gas and groundwater sample from the City Ice project.

**PANOCO Line Breaks/Oil Seepage into Short Fill Pond/Other Data**

City of Seattle Fire Department. 1989. Code Violation Report. 1515 West Garfield, Pier 91 - Building 19, 1515 West Garfield, Pacific Northern Oil. 6 September 1989. CPO E20/B14.

City of Seattle Fire Department. 1989. Inspector's Fire Hazard Report. 1515 West Garfield, Pier 91 - Building 19, Pacific Northern Oil. 23 August 1989. CPO E20/A7.

City of Seattle Fire Department. 1987. Code Violation Report. 1515 West Garfield, Pacific Northern Oil. 30 September 1987. CPO E20/B3.

Converse GES. 1989. Preliminary Hydrogeologic Assessment Report, Terminal 91 Facility. Report prepared for Pacific Northern Oil dated 22 November 1989. [Report on groundwater sampling of four monitoring wells (MW-2, MW-3, MW-6, and MW-11) and water level measurements for evaluating tidal influence.]

Kennedy/Jenks Consultants

**BIBLIOGRAPHY (Continued)****PANOCO Line Breaks/Oil Seepage into Short Fill Pond/Other Data (continued)**

Converse GES. 1990. Interim Product Extraction System Remedial Action Plan, Terminal 91. Report prepared for Pacific Northern Oil dated 26 July 1990. (Description of extraction system in recovery well EW-1, results of pumping test data, groundwater elevation data, and analytical laboratory results from a groundwater sample.)

Converse GES. 1990. Phase I Remedial Investigation, Terminal 91 Facility. Report prepared for Pacific Northern Oil dated 5 July 1990. (Report on the installation of four monitoring wells and collection of soil and groundwater samples, including laboratory analyses.)

Converse Consultants NW. 1990. Site Investigation and Remedial Cleanup Action, Bunker "C" Fuel Oil Line Break, Pacific Northern Oil Pier 91. Report prepared for Pacific Northern Oil dated 5 November 1990. (Reported soil remediation and confirmation sampling.)

Converse Consultants NW. 1991. Site Investigation and Remedial Cleanup Action, Bunker "C" Fuel Oil Line Break, Pacific Northern Oil Pier 91. Report prepared for Pacific Northern Oil dated 24 September 1991. (Reported soil remediation and confirmation sampling.)

Converse Consultants NW. 1992. Annual Progress Report, Interim Liquid Hydrocarbon Recovery System, Terminal 91. Report prepared for Pacific Northern Oil dated 5 March 1992. (Progress report on operation of product recovery system in recovery well EW-1.)

Hart Crowser, Inc. 1989. Oil Seepage Investigation, Short Fill Pond, Terminal 91. Report prepared for Port of Seattle dated 11 September 1989. [Results of soil samples from 11 soil borings and inspection for free product in four monitoring wells (MW-2, MW-3, MW-6, and MW-11).]

**Sediments**

Brown and Caldwell. 1986. Galer Street Entry Shoreline Intertidal Mitigation Site Excavation--Dredged Material Site Analysis. Report prepared for Port of Seattle dated 23 January 1986. (Collection and laboratory analysis of sediments from Terminal 91 to evaluate their suitability for open-water disposal. These sediments have been removed and were placed in the short fill.)



Kennedy/Jenks Consultants

**BIBLIOGRAPHY (Continued)****Sediments (continued)****Port of Seattle files:**

- Laboratory analysis reports from the Terminal 91 sediment sampling.

*• MITIGATION SITES**• Dredging sites***Short Fill**

Converse Consultants NW. 1992 (in progress, expected 1 July 1992). Terminal 91 Short Fill Monitoring Program. Report in preparation for Port of Seattle.

Hart Crowser and Associates, Inc. 1984. Geotechnical Engineering Study, Terminal 91 Redevelopment Project, Short Fill, Report prepared for Port of Seattle.

Hart Crowser and Associates, Inc. 1985. Modeling Assistance, Terminal 91, Seattle, Washington. Report prepared for Port of Seattle dated February 1985.

Hart Crowser and Associates, Inc. 1985. Hydraulic and Contaminant Modeling, Terminal 91. Report prepared for Port of Seattle dated 9 August 1985. (Description of original model of hydraulic flow and contaminant transport model for short fill.)

Hart Crowser and Associates, Inc. 1988. Data Report, Monitoring Well Installation and Physical Characterization of Berm-Fill Material, Terminal 91. Report prepared for Port of Seattle dated 21 October 1988. [Installation of 14 monitoring wells (W-2, W-3, W-4A, W-4B, W-4C, W-5A, W-5B, W-5C, W-6, W-7A, W-7B, W-7C, W-9, and W-10); and performance of aquifer tests (falling head and rising head hydraulic conductivity tests, i.e. slug tests).]

Pacific Groundwater Group and Converse Consultants NW. 1990. Revised Hydraulic and Transport Model, Terminal 91 Short Fill. Report prepared for Port of Seattle dated 12 December 1990. (Calibration of numerical hydraulic flow model and analytical transport model for short fill.)

URS Engineers. 1985. Progress Report, Terminal 91 Contained Fill Project. Report prepared for Port of Seattle dated 12 March 1985.

**Port of Seattle files:**

- Analytical laboratory reports for samples of short fill material

*dredged material placed in*

Kennedy/Jenks Consultants

**BIBLIOGRAPHY (Continued)**

Regulatory correspondence and permits relating to short fill:

- Dredge and fill permit (071-QYB-2-009711) dated 29 October 1988, issued to Port of Seattle by U.S. Department of the Army, Seattle District Corps of Engineers. Accompanying documentation includes:
  - Washington Department of Ecology Water Quality Certification
  - Washington Department of Fisheries Hydraulic Project Approval
  - Environmental Assessment and Finding of No Significant Impact
  - Criteria, Thresholds, Monitoring, and Remedial Action Plan; and letter of approval of the plan from U.S. Environmental Protection Agency (EPA) Region 10.

**Tanks**

ERM Northwest, Inc. 1990. Preliminary Underground Tank Assessment. Report prepared for Port of Seattle dated September 1990. (Section 2 includes results of subsurface investigation in the vicinity of Tanks 91A, 91B, 91C, and 91K; and a summary of previous findings from the vicinity of Tanks 91D, 91E, 91F, 91G, and 91N.)

Harding Lawson Associates. 1990. Underground Storage Tank Investigation in the Vicinity of the City Ice Building, Terminal 91, for the Port of Seattle. Report dated 18 June 1990. (Results of a soil and groundwater investigation in the vicinity of Tank 91N.)

Port of Seattle archives--historical site plans for Terminal 91, indicating locations of tanks and former tanks and other features. (A gas and oil tank farm was formerly located west of the present Burlington Pier 91 facility. Archive maps show the tank farm was in existence from approximately 1932 to 1943. A large underground concrete oil tank has been present on Pier 90, at least since 1929. The concrete oil tank is no longer in use.)

Port of Seattle files:

- Notes regarding testing and removal of underground storage tanks (Tanks 91D, 91E, 91F, 91G, 91I, 91K, and 91O)
- Analytical laboratory results for soil samples near Tanks 91D, 91F, 91G, and 91N
- Notes regarding UST removals/replacement at T-91 (Tanks 91A, 91B, 91C, 91D, 91E, 91F, 91G, and 91K)



**Kennedy/Jenks Consultants****BIBLIOGRAPHY (Continued)**

- Record of closure of underground storage tank (Tank 91I)
- Record of closure of underground storage tank (Tank 91N)
- Port of Seattle working drawings (marine facilities maps indicating tank locations).

SCS Engineers. 1989. Underground Storage Tank Investigation, Terminal 91, Seattle, Washington. Report prepared for Port of Seattle dated 14 August 1989. (subsurface investigation in the vicinity of Tank 91N)

**Burlington Lease Area**

Hart Crowser & Associates, Inc. 1981. Subsurface Explorations and Testing Related to Possible Oil Contamination, Terminal 91. Letter to Port of Seattle dated 21 August 1981. (Installation and sampling of soil and groundwater from wells B101 and B102.)

Documents and correspondence related to Burlington's 3013 and 3008(h) RCRA investigations.

Port of Seattle files:

- Correspondence related to soil samples collected from the Burlington lease area in during a sewer line modification, including laboratory analytical results of the soil sampling
- Correspondence (1974, 1975, and 1980, undated) related to disposal of waste oil and water directly to the ground at the Burlington lease, and other operating practices involving handling of oils at the Burlington operation.

**Miscellaneous Data**

Port of Seattle archives - drawings dating from 1920s.

Port of Seattle files:

- Correspondence related to an ammonia spill by City Ice on 24 July 1987
- Correspondence related to discharge of oil into Elliott Bay during the placement of dredge material (short fill)



Kennedy/Jenks Consultants

**BIBLIOGRAPHY (Continued)**

- Correspondence related to cleanup of a spill of PCB-containing transformer oil onto a concrete transformer slab in 1986

PORT OF SEATTLE ENGINEERING DEPARTMENT  
**DRAFT**  
FOR REVIEW AND COMMENT

PORT OF SEATTLE ENGINEERING DEPARTMENT  
**DRAFT**  
FOR REVIEW AND COMMENT

DRAFT  
10 June 1992